

*Potest*

STATINTL

[REDACTED] has suggested the use of a stop and lock instead of the slow scan. This will reduce the lost time between signals and increase the intercept capabilities of the system. I can say that we will be able to do this in the region below 1 gc. Above this range the voltage and current requirements to control the BWOS may not allow this operation without excessive power consumption and weight. This additional weight and power consumption would be in a stepping device which would control the frequency of the BWOS.

In regard to the recording time for the Ampex AR 200 at 60"/sec. the bandwidth is 200 kc. For a search mission in which signal presence is the major concern the recording speed can be cut to 3 3/4"/sec. This will give a recording bandwidth of 12.5 kc. This is sufficient to record the fast sweep pan information as to signal presence but would not permit detailed pulse information to be collected on the slow pan positions or telemetry data on the fixed tuned receivers. The use of new system one recorders might alleviate this problem by recording the pan information on them and keeping the AR 200 for automatic turn on demand when high priority signals are recognized on the stop

lock operation or fixed tuned receivers. Three system one recorders would be needed if the X-band system is not used.

The function of the automatic turn on is shown in the block diagram. This will operate off the 6 fixed tuned receivers installed. This could be extended to work off of signals obtained from the automatic stop and lock system which can be installed in the pan receivers below 1 gc and also in the microwave system if the stop and lock can be incorporated.